

APPARATUS AND METHOD FOR RELIQUEFACTION OF BOIL-OFF GAS OF VESSEL

【ABSTRACT】

The present invention relates to an apparatus and a method for reliquefaction of boil-off gas generated in a liquefied gas storage tank applied to a vessel. The apparatus for reliquefaction of boil-off gas for a vessel, according to the present invention, which is a reliquefaction apparatus for reliquefying boil-off gas generated in a liquefied gas storage tank installed on a vessel, comprises: a compression unit for compressing the boil-off gas discharged from the storage tank; and a heat exchanger for heat-exchanging the compressed boil-off gas compressed by the compression unit with the boil-off gas discharged from the storage tank, wherein the apparatus for reliquefaction of boil-off gas for a vessel further comprises: a first expansion means for dividing the boil-off gas passing through the heat exchanger into at least two flows including a first flow and a second flow, and expanding the divided first flow; a first intercooler for cooling the second flow remaining after the division of the first flow by using the first flow expanded by the expansion means as a refrigerant; and a receiver for receiving a second flow having passed through the first intercooler, in which a downstream pressure of the compression unit is controlled by a flow discharged from the receiver.

Fig. 1